

In the Claims

Claims 1 - 12 (Cancelled)

13. (Currently amended) A process for ~~organizing a~~ constructing an organized digital database in a traceable form, wherein a computer-readable medium comprises computer-executable instructions for performing the process, the process comprising:

modifying a main digital database by adding, deleting, or modifying a recording of the main database, comprising:

creating at least one digital recording, wherein the at least one digital recording comprises at least: (i) unique digital identifiers of concerned recordings and attributes of the main database, (ii) a unique digital identifier of a state of the main database corresponding to the modification of the main database, (iii) elementary values of attributes assigned via elementary operations without proceeding to store non-modified attributes or recordings, and (iv) addition of the concerned recording in an internal historical database composed of at least one internal historical table; and

reading the main database, wherein reading the main database comprises:

receiving an original request associated with the unique digital identifier of a target state;

transforming the original request to construct a modified request for addressing the internal historical database comprising criteria of the original request and the unique digital identifier of the target state; and

reconstructing the recording or recordings corresponding to the criteria of the original request and to the target state, wherein reconstructing comprises finding elementary values contained in the recordings of the internal historical database and corresponding to the

criteria of the original request to reduce requirements of storage capacity and processing times;

wherein the main database comprises at least one table with organized development links between the unique digital identifiers of successive and alternative states of the main database.

~~modifying a main digital database by addition or deletion or modification of a recording of the main database, wherein modifying the main database comprises creating at least one digital recording comprising at least: unique digital identifiers of concerned recordings and attributes of the main database, a unique digital identifier of a state of the main database corresponding to the modification of the main database, elementary values of attributes assigned via elementary operations without proceeding to store non-modified attributes or recordings, and addition of the concerned recording in an internal historical database composed of at least one internal historical table, and~~

~~reading the main database, wherein reading relates to any final or previous state of the main database and comprises receiving or intercepting an original request associated with the unique identifier of a target state in proceeding to a transformation of an original request to construct a modified request for addressing the historical database comprising criteria of the original request and the identifier of the target state, and reconstruction of the recording or recordings corresponding to the criteria of the original request and to the target state, wherein the reconstruction comprises finding elementary values contained in the recordings of the historical database and corresponding to the criteria of the original request to reduce requirements of storage capacity and processing times.~~

14. (Currently amended) The process according to claim 13, wherein the recordings of the internal historical database also contain references to other recordings of the internal historical

database to specify connections of ~~dynamic~~ dependence of source-destination type constituting a ~~casual~~ stream of interferences between data versions.

15. (Currently amended) The process according to claim 13, wherein modifying the main database ~~is a~~ comprises a logic operation, and addition of the internal historical database comprises:

a recording ~~identifying~~ the state of the base corresponding to the logic operation, where there are as many recordings as parameters of the logic operation,

a recording ~~for~~ the possible result of the logic operation, and

specifying by cognateness regrouping of operations from the elementary level of modification to ~~the~~ a level of the transaction, passing the number of semantic levels necessary for the applications.

16. (Cancelled)

17. (Currently amended) The process according to claim ~~16~~ 13, wherein the table or tables of the development links between the states of the main base contain(s) recordings specifying rules of correspondence between the recordings of the internal historical database and the states of the main database.

18. (Currently amended) The process according to claim ~~16 or~~ 17, wherein reading comprises determining the state of the main database by referring to the identifiers and to the tables of development links between the states of the main base.

19. (Previously presented) An architecture for database management that employs the process according to claim 13, wherein an application querying the main database can specify the state of the desired main database.

20. (Previously presented) The architecture according to claim 19, wherein the application brings about modifications in the entire state of the main base and gives rise, in the instance of an attempt to modify a previous state, to creation of new alternatives of digital development of the main

database, whose data is generated by the same internal historical database.

21. (Currently amended) The process according to claim 15, wherein ~~the~~ a dependence links serve as recovery criteria for said operations already carried out.

22. (Currently amended) The process according to claim 15, wherein ~~updatings~~ updates carried out on various branches can be integrated or merged into the framework of a new state inheriting these branches.

23. (Currently amended) The process according to claim 15, wherein cases of the development of the structure of the data of the main database are treated as particular cases of the development of the data of the main database ~~base, with the proviso that little of the structure/scheme of the main base is described in a manner cited for the data, as a dictionary.~~

24. (Currently amended) The process according to claim 15, wherein the internal historical database is explored and queried by applications via a native mode of a DBMS to obtain information and to navigate along versions and streams of ~~dynamic~~ dependence in accordance with the querying language in force required by the DBMS.